

AMENDMENTS TO THE CLAIMS

1. (AMENDED) An integral actuator, comprising:

~~a frame constructed and arranged for securing an actuator motor having an output shaft, having a first at least partially closed chamber for receiving said output shaft, a bearing support for supporting a driven member, and at least a, a second at least partially enclosed second chamber, and a passage connecting said first chamber with said second chamber;~~

an actuator motor with a power output shaft, secured to said ~~frame~~housing such that said power output shaft extends into said first chamber;

a control circuit mounted in said second chamber, said control circuit having circuitry to transfer for selectively transferring an externally supplied electrical power from within said second chamber to within said first chamber, said control circuit having circuitry to receive a sensor signal transferred from within said first chamber to within said second chamber, through said passage, to said actuator motor; and

a power translation member connected to said output shaft.

2. (ORIGINAL) An integral actuator according to claim 1, further comprising a cover secured to said frame such that said second chamber is substantially fully enclosed.

3. (AMENDED) An integral actuator according to claim 2, further including ~~a control circuit located in said first chamber, and~~ a plurality of conductors extending through said cover, arranged such that when said cover is secured to said frame at least one of said plurality of conductors makes electrical contact with said control circuit.

4. (ORIGINAL) An integral actuator according to claim 2 wherein said cover is removably secured.

5. (ORIGINAL) An integral actuator according to claim 3 wherein said cover is removably secured.

6. (ORIGINAL) An integral actuator according to claim 4 wherein a structure of said frame associated with said second chamber includes at least one flexible clip receptacle, said cover includes at least one flexible clip, and wherein said cover is secured to said frame to form said substantially enclosed second chamber by said at least one flexible clip engaging with said at least one flexible clip receptacle.
7. (ORIGINAL) An integral actuator according to claim 2, wherein said second chamber includes a support structure, and further comprises a control circuit supported by said support structure, wherein said control circuit is secured by a surface of said second chamber and by said cover.
8. (ORIGINAL) An integral actuator according to claim 2, wherein said cover includes a receptacle support for receiving an external connector, and a plurality of pins extending through said cover in alignment with said receptacle support, and wherein said control circuit includes electrical contacts, constructed and arranged such that when said cover is secured to said frame said pins contact said electrical contacts.
9. (ORIGINAL) An integral actuator according to claim 2, wherein said cover includes a receptacle support for receiving an external connector, and a terminal clearance hole extending through said cover in alignment with said receptacle support, and wherein said control circuit includes electrical conducting members extending in direction such that when said cover is secured to said frame said electrical conducting members extend through said terminal clearance hole.
10. (ORIGINAL) An integral actuator according to claim 2, wherein said cover includes a connector through hole, and further comprising a connects extending through said through hole, said connector including a receptacle support for receiving an external connector, and a plurality of pins extending, each having an external connection terminal above a surface of said cover and an internal connection below said surface, said wherein said control circuit includes electrical contacts, constructed and arranged such that when said cover is secured to said frame said internal connection points contact respective ones of said electrical contacts electrical.

11. (ORIGINAL) An integral actuator according to claim 8, wherein said second chamber includes a support structure, and further comprises a control circuit supported by said support structure, wherein said control circuit is secured by a surface of said second chamber and by said cover.
12. (ORIGINAL) An integral actuator according to claim 9, wherein said second chamber includes a support structure, and further comprises a control circuit supported by said support structure, wherein said control circuit is secured by a surface of said second chamber and by said cover.
13. (ORIGINAL) An integral actuator according to claim 10, wherein said second chamber includes a support structure, and further comprises a control circuit supported by said support structure, wherein said control circuit is secured by a surface of said second chamber and by said cover.
14. (NEW) An integral actuator according to claim 1, wherein the control circuit is contained on a printed circuit board that is mounted substantially perpendicular to the output shaft of the actuator motor.
15. (NEW) An integral actuator according to claim 1 further comprising:
 - a pair of rails formed on the frame within the second chamber; and
 - wherein the control circuit is contained on a printed circuit board that is received by the pair of rails such that the printed circuit board is mounted substantially perpendicular to the output shaft of the actuator motor.
16. (NEW) An integral actuator according to claim 1 further comprising:
 - a printed circuit board on which is contained the control circuit;
 - a sensor mounted on the printed circuit board;
 - a power connector mounted to the printed circuit board; and
 - wherein the printed circuit board is mounted within the second chamber such that the printed circuit board at least partially passes through the passage and into the first chamber and such that the sensor and the power connector are disposed within the first chamber.

17. (NEW) An integral actuator according to claim 16, wherein the sensor is a position sensor that detects the alternating magnetic field generated by a ring magnet attached to the output shaft.